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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,787	12/17/2001	Terry Robison	10016715-1	7114

7590 03/22/2005

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EXAMINER	
RAYYAN, SUSAN F	

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/022,787	ROBISON, TERRY	
	Examiner	Art Unit	
	Susan F. Rayyan	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending.

2. Amendment filed on October 27, 2004 has been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holenstein et al (US Patent Application Publication (Pub. No.: US 2002/0133507) in view of Robsman (US 6,477,561).

As per claims 1,9,15 Holenstein teaches:

adding a database change to a top of a queue at paragraph 25, line 2 (whereas the change is made to the top of the queue).

Holenstein does not explicitly teach starting a non-active transaction service thread conditioned upon less than a predetermined maximum number of transaction service threads being present however Robsman does teach this limitation at col.5, lines 7-10. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the cited references to optimize processor utilization in spite of varying conditions at col.6, lines 40-42.

As per claim 2 same as claim arguments above and Robsman teaches: further comprising removing a non-active transaction service thread conditioned upon there being more than the lesser of said predetermined maximum number or a dynamically determined optimum number of transaction service threads present at paragraph at col.5, lines 7-9.

As per claim 3 same as claim arguments above and Robsman teaches: further comprising changing a waiting transaction service thread to a non-active state, conditioned upon not less than a predetermined maximum number of transaction service threads being present at col.4, lines 48-50.

As per claims 4,11,17 same as claim arguments above and Holenstein teaches:
a database change in the queue at paragraph 28, lines 3-6;
removing a bottom database change from the queue at paragraph 28, line 4;
performing database changes specified by the removed database change paragraph28, line 5-6.

Holenstein does not explicitly teach changing the state of a non-active transaction service thread to active, using the active transaction service thread , and placing the transaction service thread into the non-active state however Robsman does teach changing the state of a non-active transaction service thread to active at col.5, lines 5-10, using the active transaction service thread at col.5, lines 7-11,and placing the transaction service thread into the non-active

state at col.5, lines 25-30. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the cited references to optimize processor utilization in spite of varying conditions at col.6, lines 40-42.

As per claim 5 same as claim arguments above and Robsman teaches: wherein said adding a non-active transaction service thread is further conditioned upon there being less than a dynamically determined optimum number of transaction service threads at col5, lines 38-46.

As per claim 6 same as claim arguments above and Robsman teaches: further comprising determining said dynamically determined optimum number of transaction service threads dependent upon a ratio of an arrival rate of database changes to the queue divided by a service time of items removed from the queue at col5, lines 10-18.

As per claims 7,13,19 same as claim arguments above and Holenstein teaches:
wherein adding a database change to a top of a queue further comprises adding a corresponding set of one or more interested listeners to said queue at paragraph 28 lines 1-2, whereas the Transaction Receiver is the claimed listener.

As per claims 8,14,20 same as claim arguments above and Holenstein teaches:
a database change in the queue at paragraph 28, lines 3-6;

removing a bottom database change and the corresponding set of interested listeners from the queue paragraph 28, line 4 and paragraph 28 lines 1-2, whereas the Transaction Receiver is the claimed listener.

notifying said interested listeners that the removed database change has begun at paragraph 28, line 3-5;

performing and committing database changes specified by the removed database change, conditioned upon obtaining locks necessary for transactions required for the removed database change begun at paragraph 8 and paragraph 28, line 3-5;

notifying said interested listeners of a completion status of the removed database change at paragraph 28, lines 3-6.

Holenstein does not explicitly teach changing the state of a non-active transaction service thread to active, using the active transaction service thread , and placing the transaction service thread into the non-active state however Robsman does teach changing the state of a non-active transaction service thread to active at col.5, lines 5-10, using the active transaction service thread at col.5, lines 7-11,and placing the transaction service thread into the non-active state at col.5, lines 25-30. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the cited references to optimize processor utilization in spite of varying conditions at col.6, lines 40-42.

As per claims 10,16 same as claim arguments above and Robsman teaches:

further configured to remove a non-active transaction service thread conditioned upon there being more than the lesser of said predetermined maximum number or a dynamically determined optimum number of transaction service threads present, and to determine said dynamically determined optimum number of transaction service threads dependent upon a ratio of an arrival rate of database changes to the queue divided by a service time of items removed from the queue at col.5, lines 10-18 and col.5, lines 38-50.

As per claims 12,18 same as claim arguments above and Robsman teaches:

further condition said adding a non-active transaction service thread upon there being less than a dynamically determined optimum number of transaction service threads at col.5, lines 38-50;

and to determine said dynamically determined optimum number of transaction service threads dependent upon a ratio of an arrival rate of database changes to the queue divided by a service time of items removed from the queue at col. 5, lines 10-18.

Response to Arguments

5. Applicant's arguments, see amendment filed on October 27, 2004, with respect to the rejection(s)of claim(s) 1-20 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art reference.

6. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. (See above the new grounds for rejection).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (571) 272-4117. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107 The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for Official communications, (703) 746-7238 for After Final communications and (703) 746-7240 for Status inquires and draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Susan Rayyan

March 20, 2005

Primary Examiner